

Notice of Allowability

Application No.

10/680,214

Examiner

Steven H VerSteeg

Applicant(s)

WANG, HONG

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to preliminary amendment filed October 8, 2003.
2. ☒ The allowed claim(s) is/are 42-51 and 64-71.
3. ☒ The drawings filed on 08 October 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 10/8/2003
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


STEVEN VERSTEEG
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In the specification:

Please amend the paragraph beginning on page 1, line 1, as follows:

This application is a divisional of Application No. 09/995,807, filed November 29, 2001 (now U.S. Patent No. 6,667,121), which is a continuation-in-part (CIP) of U.S. Patent Application Serial No. 09/858,873, filed May 17, 2001, (now U.S. Patent No. 6,627,317), the disclosures of which are hereby incorporated herein by reference.

Reasons for Allowance

2. The following is an examiner's statement of reasons for allowance: it is neither anticipated nor obvious over the prior art of record to have a method of making a coated article as claimed by Applicant in claims 42 and 64.
3. US 6,576,349 B2 to Lingle et al. (Lingle), US 6,559,419 B1 to Sol et al. (Sol), US 6,492,619 B1 to Sol (Sol II), and US 6,472,636 B1 to Baldwin each do not anticipated the claimed invention. Specifically, each of Lingle, Sol, Sol II, and Baldwin each disclose forming a coated article by providing a sputtering target comprising at least one metal (Table 5 for Lingle; Table 3 for Sol; Table 3 of Sol II, and Table 3 of Baldwin) such as Ti or NiCr and sputtering the target to form a layer structure (see examples). The problem is that in each of Lingle, Sol, Sol II,

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and Baldwin, while a NiCr sputtered layer containing oxygen so that the layer formed is oxidation graded, the sputtering of the NiCr oxide layer comprises greater than 8 sccm/kW. In forming a titanium dioxide layer, a flow rate within the range claimed by Applicant is achieved, but the titanium dioxide layer is not oxygen graded. It is only the NiCr oxide layer that is oxidation graded.

4. Thus, Lingle, Sol, Sol II, and Baldwin sputter an oxidation graded layer with a gas comprising oxygen of greater than 8 sccm/kW. Lingle, Sol, Sol II, and Baldwin also sputter a non-oxygen graded titanium dioxide layer with an sccm/kW within the range claimed by Applicant.

5. Modifying any of Lingle, Sol, Sol II, and Baldwin to change the sccm/kW of oxygen for the oxygen graded NiCr oxide layer to be 0.1-4.0 sccm/kW as is used for the non-oxygen graded titanium dioxide layer is not obvious and would only be possible utilizing hindsight reasoning.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

General Information

For general status inquiries on applications not having received a first action on the merits, please contact the Technology Center 1700 receptionist at (571) 272-1700.

For inquiries involving Recovery of lost papers & cases, sending out missing papers, resetting shortened statutory periods, or for restarting the shortened statutory period for response, please contact Denis Boyd at (571) 272-0992.

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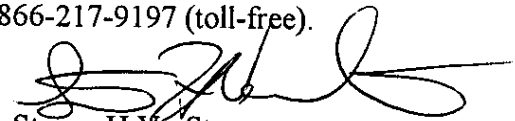
For general inquiries such as fees, hours of operation, and employee location, please contact the Technology Center 1700 receptionist at (571) 272-1300.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven H VerSteeg whose telephone number is (571) 272-1348. The examiner can normally be reached on Mon - Thurs (6:30 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Steven H VerSteeg
Primary Examiner
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shv
June 8, 2004